

REMARKS/ARGUMENTS

The Status of the Claims.

Claims 1-74 are pending with entry of this amendment. Claims 75-89 are canceled. Claims 1, 15, 19, 20, 66, and 68 are amended herein. These amendments introduce no new matter and support is replete throughout the specification. The amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter or agreement with any objection or rejection of record.

With respect to claim 1, support for devices exclusively within the reach of a particular rotational robot can be found throughout the specification. For example, see Figures 1, 3, 8 and 9; and, the Work Perimeters section starting on page 14 of the specification.

With respect to claim 15, the amendment adjusts antecedent basis for certain terms, and clarifies the relationships between system components in the claim. Support can be found throughout the specification, e.g., page 7, line 11.

With respect to claim 19, the amendment clarifies that the cited work perimeters are not necessarily the first or second work perimeters of claim 1. Support can be found throughout the specification, e.g., Figures 3 and 8, and associated text.

With respect to claim 20, the amendment clarifies the relationships between system components and clarifies that cited work perimeters are not necessarily the first or second work perimeters of claim 1. Support can be found throughout the specification, e.g., Figure 9, and associated text.

With respect to claim 66, the amendment clarifies that cited work perimeters are not necessarily the first or second work perimeters of claim 1. Support can be found throughout the specification, e.g., Figure 1, and associated text.

With respect to claim 68, support for fluid transfer devices associated with transfer stations and not exclusively within the reach of a single rotational robot can be found throughout the specification, e.g., in Figure 9 and associated text.

Applicants submit that no new matter has been added to the application by way of the above Amendment. Accordingly, entry of the Amendment is respectfully requested.

Copyright Notification.

Although 37 § 1.71(d)-(e) requires copyright notification when copyright marks are present in the specification, it does not prohibit a copyright notification in the absence of a copyright mark. Applicant believes the Examiner's requirement to remove the notification is unwarranted. However, in order not to further prolong disagreement on this issue, Applicant has amended the specification to remove the copyright notice.

35 U.S.C. §112, Second Paragraph.

Claims 1-74 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite apparently for alleged lack of clarity in certain terms and/or whether certain terms are further limiting in particular dependent claims. Applicant requests that amendments filed herein in response to the section 112 rejections be entered because this was the first time these rejections were presented to the Applicants and because entry of the amendments will simplify any issues remaining in the case.

On page 2 of the Office Action, claim 1 is apparently rejected for alleged lack of clarity regarding the interaction of claim 1 with certain dependent claims, such as claims 15, 19, 20, and 68. Applicant believes that current amendments to these claims remove any potential confusion as to the claim language. Therefore, Applicants request that section 112 rejections of claim 1 be withdrawn.

With regard to claim 9, the second set of sample holders can include members that are also members of the first set of sample holders found in claim 2. Applicant believes this is the unambiguous plain meaning of the terms in the original claims. For example, no language in the claims requires the first and second sets to have mutually exclusive set members. It is not clear from the Office Action whether any particular claim was rejected

based on the Examiner's comment found 4 lines up from the bottom of page 2. If such a rejection is considered currently pending, Applicant requests clarification and particularization of the basis for such a rejection.

With regard to claim 15, the Examiner suggests the original claim 15 redefined the work perimeter of claim 1 by suggesting a work perimeter can comprise a multiwell plate. In addition, there was allegedly a lack of clarity as to whether the first and second work perimeters of claim 1 must necessarily be the same first and second work perimeters of claim 15. Applicant believes the current amendment to claim 15 (suggested in part by the Examiner) makes it clear that sample holders comprise the multi-well plates, and that the work perimeters of claim 15 are not necessarily the first and second work perimeters of claim 1.

With regard to claim 19, the Examiner asserted that it was allegedly unclear as to whether claim 19 is further limiting over claim 1. The current amendment makes it clear that claim 19 further limits claim 1 in that it requires, e.g., a sample specifically to be transferred from one work perimeter to another in a sample holder (as compared to a more generic sample transfer, e.g., by various methods described in the specification and in the paragraphs starting at page 10, line 2; or at page 13, line 21).

With regard to claim 20, the amendment clarifies that the work perimeters are not necessarily the first and second work perimeters of claim 1.

With regard to claim 66, the current amendment makes it clear that the work perimeters of claim 66 are not necessarily the same work perimeters found in claim 1.

With regard to claim 68, the current amendment makes it clear that the transfer stations of claim 68 are not necessarily the transfer stations of claim 1.

35 U.S.C. §103(a).

Claims 1-74 were rejected under 35 U.S.C. §103(a) as allegedly obvious based on Amano in view of Kedar, Ishibashi, and Stylli. Applicants traverse.

Three requirements must be met for a *prima facie* case of obviousness. First, the prior art reference must teach all of the limitations of the claims. M.P.E.P § 2143.03.

Second, there must be a motivation to modify the reference or combine the teachings to produce the claimed invention. M.P.E.P. § 2143.01. Third, a reasonable expectation of success is required. M.P.E.P. § 2143.02. The teaching or suggestion to combine and the expectation of success must be both found in the prior art and not based on Applicants' disclosure. M.P.E.P. §2143.

Specifically, a *prima facie* case of obviousness requires that the combination of the cited art, taken with the general knowledge in the field, must provide all of the elements of the claimed invention. When a rejection depends on a combination of prior art references, there must be some teaching, suggestion or motivation to combine the references. In re Geiger, 815 USPQ2s 1276, 1278 (Fed. Cir. 1987). Moreover, to support an obviousness rejection the cited references must additionally provide a reasonable expectation of success. In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991), citing In re Dow Chemical Co., 5 USPQ2d 1529, 1531 (Fed. Cir. 1988).

The claims are not obvious based on Amano in view of Kedar, Ishibashi and Stylli. The combined references fail to provide all the limitations of the present claims and the cited combinations are not motivated.

As a preliminary matter, Applicant notes that the Office Action is highly informal and fails to provide adequate notice of the reasoning and facts allegedly providing a basis for rejection of the claims. According to MPEP 706, the goal of examination is to clearly articulate any rejection so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity. The examiner should never overlook the importance of his or her role in allowing claims which properly define the invention. For each claim rejected, 37 CFR § 1.104(e)(2) requires the examiner to cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

With regard to the present section 103 rejections of claims 1-74, the Examiner has not particularly pointed out the basis for rejection of any claim. Although it is the burden of the Examiner, e.g., to cite the prior art source for each limitation of each rejected claim,

such citations have not been provided in this Office Action or in the Office Action of September 16, 2004. The pertinence of the cited references is not apparent for any of the rejected claims. However, without direction from the Examiner, Applicant has made an effort to review Amano, Kedar, Ishibashi and Stylli for limitations found in the rejected claims. Applicants could not find all limitations for independent claim 1, nor for additional limitations found in at least 43 of the rejected dependent claims.

In the present Office Action at section 5, the Examiner admits that no combination of Amano individually with either of Kedar, Ishibashi or Stylli provides all the limitations of any claim. Yet no guidance is provided as to what limitation(s) were not found in the paired combinations or how additional references provide the missing limitation(s). In the same sentence, the Examiner proceeds to reject all the diverse claims 1-74 with the conclusory statement that "the combined teachings of the references would have motivated one of ordinary skill in the art to change the teachings of the Amano reference to meet the instant claim limitations." Applicant respectfully notes that no amount of motivation can make up for the missing limitations. Applicant requests withdrawal of all the section 103 rejections in the absence of a *prima facie* case.

Although the Examiner has failed in his burden to state a case, in the interest of cooperation, and to expedite the case, Applicants explain below how the cited references fail to disclose all limitations of the claims and why combinations of the references are not motivated.

The combination of cited references does not provide all limitations of the claims.

Claims 1-74 were rejected based on Amano in view of Kedar, Ishibashi and Stylli. However, no combination of these references can provide all the limitations of any rejected claim, as described below.

Amano (4,835,707) describes a robot **20** that can transport a sample tube **37** [sample holder] between devices in an analytical system (see Figure 2). The Examiner admits that Amano does not teach a plurality of modules, multi-well plates as sample holders or non-sequential treatment of the samples, as set forth in certain dependent claims. In addition, Applicants believe Amano fails at least to teach the claim 1, clause (d), limitations

of transporting an individual sample holder to at least one device in each of two or more rotational robot work perimeters. Nothing in the Kedar, Ishibashi and/or Stylli references provides these missing elements (as was stated in the Response to the first Office Action and never specifically rebutted in the present Office Action).

Kedar teaches a single rotational robot transporting multiwell plates between devices. Kedar does not provide the claim 1 limitations missing from Amano. For example, Kedar does not teach transporting an individual sample holder to at least one device in each of two or more rotational robot work perimeters. Furthermore, Kedar does not teach required limitations found in the several dependent claims concerning multi-well plates, such as, e.g., the alternate sample holders of claim 13; the multiple dispensing device of claim 29; pin tool devices of claims 31 and 32; inner wall alignment members and pushers of claims 50-52; and, the multi-well lid of claim 54. Kedar in combination with Amano fails to teach all the limitations of claim 1, or any of the dependent claims. Therefore this combination does not render any of the claims obvious. Applicant has reviewed Ishibashi and Stylli and was unable to find discussion of these limitations. No combination of the cited references provides all the limitations of the rejected claims.

Ishibashi is cited as allegedly teaching parallel or serial transfer of cups to a module without respect to the order in which the cups were supplied. The Examiner cites Ishibashi as teaching "arranging the analysis of modules in a parallel or serial manner and transferring the sample cups to the module that performs the required analysis/analyses without respect to the order in which the cups were supplied with sample ..." However this is not what is claimed in the present application. The system of Ishibashi may have at least one device, but makes no mention of elements that could be construed to be, e.g., work perimeters, rotational robots, transfer stations or sample holders. Ishibashi seems to be essentially irrelevant to claim 1. No combination of Ishibashi with Amano, Kedar, and/or Stylli provides all the limitations of the rejected claims.

Stylli teaches queuing of sample holders and handling of multiple samples at multiple individual work stations. As with the Ishibashi reference, incorporation of parallel processing is not claimed subject matter and does not provide the missing limitations of any

rejected claim. For example, Stylli does not teach, e.g., transporting an individual sample holder to at least one device in each of two or more rotational robot work perimeters (whether this is accomplished in series or parallel is irrelevant, e.g., to claim 1). A combination of Stylli with Ishibashi, Amano, and/or Kedar does not teach all the limitations of the claims and does not render any of the claims obvious.

The combination of Amano Stylli, Ishibashi, and/or Kedar does not teach all the limitations of any claims. Specifically stated, the combination of all cited references does not teach at least:

- the claim 1 plurality of sample holders, of which individual sample holders are transported between at least one device exclusively within the reach of an associated rotational robot in each of at least two or more work perimeters during operation of the system;
- the additional claim 4 limitation of test samples that comprise a library of cDNA molecules;
- the additional limitations of the claim 5 library of gene regulatory regions operably linked to a reporter gene;
- the additional claim 6 limitations of regulatory regions in the library derived from genes that are differentially expressed in a cell depending upon the presence or absence of a particular stimulus;
- the additional claim 7 limitation of a library of antisense nucleic acids or double-stranded RNA molecules;
- the additional claim 8 limitation of a combinatorial library of chemical compounds;
- the additional claim 11 G-protein limitation;
- the additional claim 15 384-well plates in a first work perimeter and 1536-well plates in a second work perimeter limitations;
- the additional claim 17 gripper comprising a sensor limitation;

- the additional claim 18 limitation of a gripper comprising a deflectable member;
- the additional claim 19 limitation of sample transfer in a sample holder from one first work perimeter to another second work perimeter;
- the additional claim 20 limitations of a transfer station associated with a fluid transfer device, which transfers samples from a sample holder in one the first work perimeter to a sample holder in another the second work perimeter;
- the additional claim 21 limitation of rotational robots configured to transport sample holders along a multi-directional path;
- the additional claim 22 limitation of the system comprising between 2 and 10 rotational robots;
- the additional particular fluid transfer device limitations of claim 29;
- the additional claim 30 limitation wherein the aspirated sample volume is at least several times the volume of a dispensed sample;
- the additional pin tool fluid transfer device limitation of claim 31;
- the additional pin tool wash station limitations of claim 32;
- the additional pin tool washing limitation of claim 34;
- the additional automatic sample processor limitation of claim 36;
- the additional sample storage capacity limitations of claims 38-40;
- the particular incubator or storage compartment additional limitations of claim 41;
- the additional image analysis limitation of claim 46;
- the additional daily assay output limitations of claims 47-49;
- the additional multiwell plates and positioning device limitations of claims 50-52;

- the additional lid and de-lidding system limitations of claims 53-56;
 - the additional controllers and interfaces limiting claims 60-63;
 - the additional operator alert limitations of claims 64-65;
 - the additional storage and assay work perimeter limitations of claims 66-68;
- or,
- the additional claim 74 limitation of a detection device located in a third work perimeter.

Those claims not listed above are at least non-obvious based on the limitations not found in cited references for the claims from which they are dependent.

Because the cited references do not describe all the limitations of any rejected claim, Applicants respectfully request withdrawal of the section 103(a) rejections.

Lack of motivation to combine references.

Because the Examiner did not specifically cite what limitations are allegedly contributed from which references to describe particular claims, it is difficult to respond effectively to the rejections. However, assuming *arguendo* that the references could be combined to describe any of the present claims, Applicants believe that the motivation to combine such references is not found in the cited art.

It is well established that, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references can not render the claims obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Here, the combination of any of the secondary references with Amano would require substantial reconstruction and redesign of the elements shown in Amano, as well as a change in the basic principle under which the Amano construction was designed to operate. The invention of Amano is based on the basic principle that a robot associated with a series of devices can speed sequential processing and analysis of samples. In Amano, repetitive pretreatments of samples in preparation for injection into an inherently sequential HPLC column for analysis is speeded by robotic processing of the samples

through consecutive assay steps. These facts show Amano teaches away from the suggested combinations. To incorporate suggested aspects (e.g., bypass conveyors, linear robots, massively parallel sample handling) of the cited references to Amano would necessarily change the principle of operation and provide an unsatisfactory result. That is, the parallel analysis or changeable assay sequences of cited references would require changes in the inherently serial nature of chromatographic analysis in Amano. Thus, the combinations can not be considered obvious according to *In re Ratti* and *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Because the present claims are not obvious in view of cited combinations of art, Applicants respectfully request that the rejections of claims based on section 103 be withdrawn.

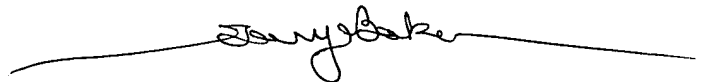
CONCLUSION

In view of the foregoing, Applicants believes all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the claims are deemed not to be in condition for allowance after consideration of this Response, a telephone interview with the Examiner is hereby requested. Please telephone the undersigned at (510) 769-3510 to schedule an interview.

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Respectfully submitted,



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Attachments:

- 1) A transmittal sheet;
- 2) A fee transmittal sheet;
- 3) A Notice of Appeal; and,
- 4) A receipt indication postcard.